```
     (FILE 'HOME' ENTERED AT 17:25:25 ON 08 MAY 2000)

     INDEX 'ADISALERTS, ADISINSIGHT, AGRICOLA, AIDSLINE, ANABSTR, AQUASCI,
     BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO,
CABA,
     CANCERLIT, CAPLUS, CEABA, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU,
     DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...' ENTERED AT 17:25:33 ON 08 MAY
     2000
                E FISCHER, D?/AU
                SEA E1-E11 AND MICROPHTHALMIA
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               0*  FILE ADISINSIGHT
               0*  FILE BIOCOMMERCE
               0*  FILE CIN
               0*  FILE DRUGLAUNCH
               0*  FILE DRUGMONOG2
               0*  FILE DRUGNL
               0*  FILE FOREGE
               0*  FILE PHAR
               0*  FILE PHIC
               0*  FILE PHIN
L1              QUE ("FISCHER, D S"/AU OR "FISCHER, D W"/AU OR "FISCHER,
D?"/AU
               ---------
                SEA FISCHER AND MICROPHTHALMIA
               ---------
               1   FILE BIOBUSINESS
               5   FILE BIOSIS
               1   FILE CABA
               1   FILE CANCERLIT
               5   FILE CAPLUS
               5   FILE EMBASE
               1   FILE ESBIOBASE
               1   FILE HEALSAFE
               2   FILE LIFESCI
               5   FILE MEDLINE
               2   FILE NIOSHTIC
               3   FILE SCISEARCH
              10   FILE TOXLINE
               5   FILE TOXLIT
L2              QUE FISCHER AND MICROPHTHALMIA
               ---------

     FILE 'TOXLINE, BIOSIS, CAPLUS, EMBASE, MEDLINE, TOXLIT, SCISEARCH,
     LIFESCI, NIOSHTIC, BIOBUSINESS, CABA, CANCERLIT, ESBIOBASE, HEALSAFE'
     ENTERED AT 17:28:22 ON 08 MAY 2000
L3              0 S FISCHER AND MICROPHTHALMIA AND MELANOMA
L4             47 S FISCHER AND MICROPHTHALMIA
L5              8 DUP REM L4 (39 DUPLICATES REMOVED)

     INDEX 'ADISALERTS, ADISINSIGHT, AGRICOLA, AIDSLINE, ANABSTR, AQUASCI,
     BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO,
CABA,
     CANCERLIT, CAPLUS, CEABA, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU,
     DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...' ENTERED AT 17:30:25 ON 08 MAY
     2000
                SEA (MICROPHTHALMIA OR MI OR MYC-RELATED B-HLH-ZIP)
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             2462   FILE ADISALERTS
               82   FILE ADISINSIGHT
              763   FILE AGRICOLA
            17398   FILE AIDSLINE
              107   FILE ANABSTR
              610   FILE AQUASCI
             3776   FILE BIOBUSINESS
               30   FILE BIOCOMMERCE
             8795   FILE BIOSIS
              140   FILE BIOTECHABS
              140   FILE BIOTECHDS
             1438   FILE BIOTECHNO
             1299   FILE CABA
            30238   FILE CANCERLIT
             9106   FILE CAPLUS
               94   FILE CEABA
               34   FILE CEN
             1790   FILE CIN
              161   FILE CONFSCI
                5   FILE CROPB
              180   FILE CROPU
               97   FILE DDFB
            10227   FILE DDFU
              331   FILE DGENE
               97   FILE DRUGB
              136   FILE DRUGLAUNCH
              273   FILE DRUGMONOG2
               22   FILE DRUGNL
            13819   FILE DRUGU
              160   FILE EMBAL
             8805   FILE EMBASE
             1916   FILE ESBIOBASE
               13   FILE FOMAD
               15   FILE FOREGE
               42   FILE FROSTI
               92   FILE FSTA
            36824   FILE GENBANK
              109   FILE HEALSAFE
              981   FILE IFIPAT
             1153   FILE JICST-EPLUS
                9   FILE KOSMET
             1251   FILE LIFESCI
           264536   FILE MEDLINE
              172   FILE NIOSHTIC
             1702   FILE NTIS
              661   FILE OCEAN
              104   FILE PHAR
                3   FILE PHIC
              682   FILE PHIN
            57020   FILE PROMT
            14714   FILE SCISEARCH
            43576   FILE TOXLINE
             1695   FILE TOXLIT
            12702   FILE USPATFULL
             2575   FILE WPIDS
             2575   FILE WPINDEX
L6               QUE (MICROPHTHALMIA OR MI OR MYC-RELATED B-HLH-ZIP)
                 ---------
                 SEA (MICROPHTHALMIA OR MI OR MYC-RELATED B-HLH-ZIP) AND
TRANSCR
                 ---------
                   2   FILE AGRICOLA
                 555   FILE AIDSLINE
                   4   FILE AQUASCI
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              202   FILE BIOSIS
                4   FILE BIOTECHABS
                4   FILE BIOTECHDS
              132   FILE BIOTECHNO
               10   FILE CABA
             1750   FILE CANCERLIT
              183   FILE CAPLUS
                1   FILE CEABA
                3   FILE CIN
                1   FILE CONFSCI
               15   FILE DDFU
               18   FILE DRUGU
                8   FILE EMBAL
              166   FILE EMBASE
              108   FILE ESBIOBASE
                1   FILE FSTA
              148   FILE GENBANK
                2   FILE IFIPAT
               20   FILE JICST-EPLUS
               68   FILE LIFESCI
             2846   FILE MEDLINE
                3   FILE NTIS
                3   FILE PHIN
               18   FILE PROMT
              303   FILE SCISEARCH
              614   FILE TOXLINE
               71   FILE TOXLIT
              665   FILE USPATFULL
                3   FILE WPIDS
                3   FILE WPINDEX
L7               QUE (MICROPHTHALMIA OR MI OR MYC-RELATED B-HLH-ZIP) AND
TRANSCR
                 ---------

     FILE 'MEDLINE, CANCERLIT, USPATFULL, TOXLINE, AIDSLINE, SCISEARCH,
     BIOSIS, CAPLUS, EMBASE, GENBANK, BIOTECHNO, ESBIOBASE, TOXLIT, LIFESCI,
     JICST-EPLUS, DRUGU, PROMT, CABA, EMBAL, AQUASCI, BIOTECHDS, CIN, NTIS,
     PHIN, WPIDS, AGRICOLA, IFIPAT, CEABA, CONFSCI, ...' ENTERED AT 17:36:13
     ON 08 MAY 2000
L8          7912 S (MICROPHTHALMIA OR MI OR MYC-RELATED B-HLH-ZIP) AND
TRANSCRIP
L9            18 S L8 AND FISCHER
L10           18 DUP REM L9 (0 DUPLICATES REMOVED)
L11          376 S L8 AND MELANOMA
L12            0 S L8 AND (MICROPHTHALMIA OR MI OR MYC-RELATED B-HLH-ZIP)(10W)M
L13           41 S L8 AND (MICROPHTHALMIA OR MI OR MYC-RELATED B-HLH-ZIP)(10W)M
L14            7 DUP REM L13 (34 DUPLICATES REMOVED)
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L7 ANSWER 8 OF 10 SCISEARCH COPYRIGHT 2000 ISI (R)
AN 1998:288448 SCISEARCH
GA The Genuine Article (R) Number: ZD914
TI **MITF** regulation in **melanoma** cells: Contrasts with normal melanocytes
AU OlaizolaHorn S (Reprint); Park H Y; Gilchrest B A
CS BOSTON UNIV, DEPT DERMATOL, BOSTON, MA 02118
CYA USA
SO JOURNAL OF INVESTIGATIVE DERMATOLOGY, (APR 1998) Vol. 110, No. 4, pp. 711-711.
Publisher: BLACKWELL SCIENCE INC, 350 MAIN ST, MALDEN, MA 02148.
ISSN: 0022-202X.
DT Conference; Journal
FS LIFE; CLIN
LA English
REC Reference Count: 0

20106828

TI Expression of genes for microphthalmia isoforms, Pax3 and MSG1, in human melanomas.

AU Vachtenheim J; Novotna H

CS Laboratory of Molecular Biology, University Hospital, 3rd Medical Faculty,
Charles University, Prague 8-Bulovka, Czech Republic.. jivach@upn.anet.cz

SO CELLULAR AND MOLECULAR BIOLOGY, (1999 Nov) 45 (7) 1075-82.
Journal code: BNA. ISSN: 0145-5680.

CY France

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 200005

EW 20000503

AB Microphthalmia (MITF) gene product, a transcription factor of the basic-helix-loop-helix type, is thought to play a role in the regulation of genes encoding the enzymes necessary for melanogenesis. These include tyrosinase, TRP-1 and TRP-2. Melanocyte-specific isoform of microphthalmia, MITF-M, is expressed in normal and malignant melanocytes. The presence of two other isoforms of microphthalmia, MITF-A and MITF-H, which differ from MITF-M in the amino-terminus, was demonstrated also in some non-melanocytic lineages. Here we have analyzed the presence of all three known isoforms of MITF mRNA in a panel of 17 human melanoma cell lines by a reverse transcriptase-polymerase chain reaction using isoform-specific primers. While, as expected, the predominant form in melanoma cell lines was MITF-M, low amounts of **MITF**-A mRNA was found in almost all melanomas, as well as in most of 20 **tumor** cell lines of the non-melanocyte origin (lung and colon carcinomas, osteosarcomas and neuroblastomas). The expression of MITF-H was not detected, with a few exceptions, in the tested cell lines. Pax3 transcription factor was reported earlier to regulate positively the melanocyte-specific promoter of the MITF gene. We found here that the Pax 3 mRNA was expressed in all melanoma cell lines, even in those that had repressed the MITF-M and were amelanotic. This suggests that additional factors, besides Pax3, are required for the MITF expression. The MSG1 (melanocyte-specific gene 1), a gene originally isolated from melanocytes and containing a strong transcription activation domain, was also found expressed in all melanomas and most non-melanocyte tumor cell lines. Together, these data indicate that the MITF-M isoform is the major type of MITF mRNA present in human melanoma cell lines and show that the expression of the isoform MITF-A and the MSG1 is not restricted to malignant melanocytes and occurs in a wide range of tumor cell lines.

TI The melanocyte-specific isoform of the **microphthalmia transcription** factor affects the phenotype of human melanoma

AU Selzer, Edgar; Wacheck, Volker; Lucas, Trevor; Heere-Ress, Elisabeth; Wu, Min; Weilbaecher, Katherine N.; Schlegel, Werner; Valent, Peter; Wrba, Fritz; Pehamberger, Hubert; Fisher, David; Jansen, Burkhard

CS Department of Radiotherapy and Radiobiology, Center of Excellence for Clinical and Experimental Oncology, University Hospital Vienna, Vienna, 1090, Austria

SO Cancer Research (2002), 62(7), 2098-2103
CODEN: CNREA8; ISSN: 0008-5472

PB American Association for Cancer Research

DT Journal

LA English

AB The **microphthalmia transcription** factor MITF plays a pivotal role in the development and differentiation of melanocytes. The purpose of this work was to investigate the expression and function of the melanocyte-specific isoform MITF-M in human melanoma. The authors found that MITF-M is repressed in 8 of 14 established melanoma cell lines tested. Transfection of MITF-M into a melanoma cell line (518A2) lacking the M-isoform and into a permanent cell line established from normal melanocytes (NMel-II) resulted in slower **tumor** growth in a severe combined immunodeficient-mouse xenotransplantation model. The growth difference between vector control-transfected tumors derived from the NMel-II cell line (mean **tumor** wt., 3.2 g) and MITF-M (+) transfectants (mean **tumor** wt., 1.1 g) was significant. The mean **tumor** wt. of control-transfected 518A2 tumors was 0.99 g and of MITF-M (+) transfectants, 0.69 g. The difference in growth between 518A2 controls and the MITF-M (+) transfectants was clear, however it did not reach statistical significance. In addn. to the growth-inhibitory effects, MITF-M expression led to a change in the histopathol. appearance of tumors from epithelioid toward a spindle-cell type in vivo. These results indicate a role for the MITF-M isoform in the in vivo growth control and the phenotype of human melanoma. In conclusion, MITF-M may qualify as a marker capable of identifying subgroups of melanoma patients with different **tumor** biol. and prognosis.